ADVANCETEC INDUSTRIES INC

# User Manual

## Pro Install Hands-Free Vehicle Kit for The SONIM AT & T Phone

**Available with cradle**
**with and without phone locking device**

- Vehicle Hands-free Kit Part # ATT6301A consists of the SONIM custom Hands-free cradle
- Vehicle Hands-free Kit Part # ATT6302A consists of the SONIM custom Hands-free cradle WITH phone lock

and:

| | |
|---|---|
| 1. Part # AT8231A | Speaker |
| 2. Part # AT8262A | Junction Box |
| 3. Part # AT8230A | Visor Microphone. |
| 4. Part # AT8232A | Power cable |
| 5. Part # AT9299B | PTT |

Optional Extras

| | |
|---|---|
| 1. Part # ATT7107A | Privacy Handset |
| 2. Part # ATT8428A | Palm Mic. |

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**Hands-free Installation**

**Before beginning the installation process, determine the best locations for the mounting of the Mounting Bracket, Hand-free Cradle, Push-To-Talk (PTT) button, Visor Microphone, Speaker and Junction Box.**

**Consider the following guideline when planning the installation:**

- **DO use all mounting hardware provided.**
- **DO ensure that cables are not placed under stress.**
- **DO follow proper + and - connections.**
- **DO crimp connectors securely.**
- **DO NOT attach components to any part of the Car that is not rigid or is subject to excessive vibration.**
- **DO NOT install components in areas where rain or snow can easily get into them, such as next to a Car window, which may be left open.**
- **DO NOT dress cables over sharp edges that could cause wear or tearing of cable insulation.**
- **DO NOT install components in locations where they might interfere with the Car operator or operating controls.**
- **DO NOT install the Hands-free Cradle where it will be difficult for the operator to reach.**

**! WARNING**
**CARS EQUIPPED WITH AIR BAGS**
**An air bag inflates with great force. DO NOT place objects, including communications equipment, in the area over the air bag or in the air bag deployment area. If the communication equipment is improperly installed and the air bag inflates, this could cause serious injury.**

**It is recommended that the installation of the Car communication equipment be performed by a professional installer/technician trained in the requirements for such installations. An air bag's size, shape and deployment area can vary by Car make, model, and front compartment configuration (for example, bench seat vs. bucket seats). Contact the car manufacturer's corporate headquarters, if necessary, for specific air bag information for the car make, model, and front compartment configuration involved in your communication equipment installation.**

**A. Speaker Installation**
**1. Mount the Speaker beneath the dashboard, on the passenger's side of the car, out of the way of the passenger. Do not mount the Speaker on the dashboard or the rear window shelf.**

**2. The Speaker should be located more than four feet from the junction box.**
**3. The Speaker includes a mounting bracket, permitting it to be mounted in a variety of ways. Loosen the thumbscrews on the side of the speaker and using the mounting bracket as a template, drill the necessary mounting holes and secure the bracket with the self-tapping screws provided.**

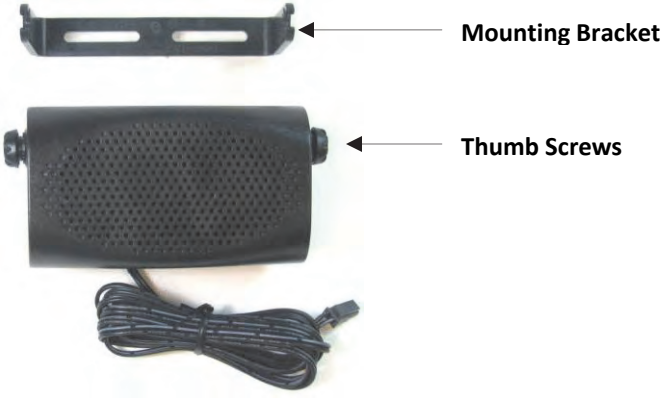


**Diagram 1**

**4. Position the Speaker on the mounting bracket and secure it by tightening the thumbscrews. The mounting bracket is used to permanently mount the Speaker in place while permitting it to be tilted to a desired angle.**
**5. Feed the cable out of sight to the location where you intend to mount the junction box.**
**6. The speaker should be located at least 3 ft (1m) from the visor microphone. Avoid placing the speaker where it faces the visor microphone.**

**B. Microphone Installation**
**1. The Microphone supplied has noise cancellation features and as such the selection of the correct position for the microphone is vital for the successful performance of the Car Kit.**
**2. The Microphone should be mounted either on the sun visor directly above and facing the driver, or on the headliner just above and facing the driver.**

**Diagram 2**

**3. The visor microphone has a noise canceling feature and must be mounted facing the driver as shown in the picture above.**
**4. To avoid visual or physical obstruction, route the microphone cable down inside the door molding. Allow sufficient slack on the connector end of the cable to reach the Junction Box.**
**5. Feed the cable to the location where you intend to mount the junction box.**

**Note! The microphone should not be mounted near a window or in a spot where road and ambient background noise would be substantially high (above 85dB SPL).**

**C. Mounting of the PTT**
**1. To attach the PTT to the gear lever, strap the PTT around the gear lever using the Velcro strip attached, with the cord facing down.**

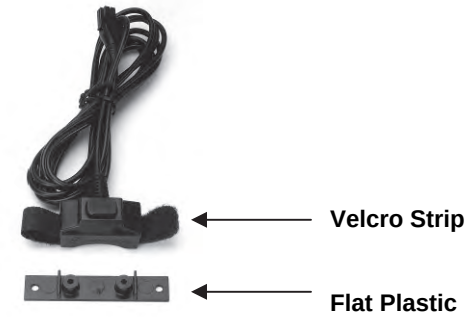


**Diagram 3**

**2. To attach the PTT to a flat surface, remove the 2 screws from the bottom of the PTT, which holds the Velcro strip in place.**

**Remove the strips and replace the small plastic part that held the strips in place with the larger flat plastic part supplied with the PTT. Screw the new plastic part in place.**
**3. Feed the cable out of sight to the location where you intend to mount the junction box.**
**Caution: Make sure there is sufficient slack in the cable to allow the free movement of the gear lever without stretching the PTT cable.**

**D. Installing the Power Cable**
**Caution! The Car kit should be used with a negative ground electrical system only. Reverse polarity (positive ground) will trigger protection circuits which cause the cable fuse to open. Check the ground polarity before you begin the installation to prevent wasted time and effort. 12V DC or 24V DC automotive systems are directly supported. Determine the best cable route to the Car ignition for the Power Cable from the location where you intend to mount the Junction Box.**

**Diagram 4**

**1. Route the black lead of the main power cable to a convenient chassis ground and the red lead to the positive supply voltage connection point. If it is necessary to penetrate the firewall, try to use an existing opening.**
**2. If there is no existing opening, drill a new hole approximately 9/16" or 3.5cm in diameter. Make sure that there is clearance on the opposite side. Insert a grommet into the hole to prevent damage to the power cable. When making connections on the engine side of the firewall, additional in-line fuse holder (included) should be used at the connection points.**

**GREEN MUST GO TO IGNITION OR CONNECTED WITH RED**
**Diagram 5**

**3. Cut the black lead to the desired length.**

**4. If the connection is being made under the dash or in the Car cabin, connect the black lead directly to the chassis of the Car.**
**5. If the connection is being made in the engine compartment, connect the in-line fuse holder between the black lead of the power cable and the desired chassis connection point.**

**Note! Do not connect the black lead to the negative (-) battery terminal. The Car Kit could be damaged if there were a malfunction in the Car's electrical system.**

**6. Cut the red lead to the desired length. This lead will be connected such that it has positive supply voltage at all times, even when the Car is turned off.**
**7. If the connection is being made under the dash or in the Car cabin, connect the red lead to a positive supply voltage point.**
**8. If the connection is being made in the engine compartment or directly to the battery, connect the in-line fuse holder between the red lead of the power cable and the desired positive voltage connection point.**
**9. Route and connect the green lead to a convenient ignition switch supply point in the Car. <u>If the green lead is not being connected to the ignition, it MUST be connected together with the red lead.</u>**

**Note! An ignition switch accessory terminal can be verified by measuring the terminal while operating the Car's key switch. With the ignition key in the "accessory ON" position, the terminal voltage should measure the Car's battery voltage. With the switch in the "OFF" position, it should measure near zero**

**<u>Stereo Mute</u>**
**If the Car's stereo system supports an external muting feature, route and connect the orange wire to the car stereo system. Otherwise, the orange wire may be left unconnected and cut off or tied out of the way.**

**Note! The Car Kit supports an "Entertainment Mute" function when connected to a car stereo system that provides for external muting. This function is compatible with systems that mute the audio output when the control line is connected to ground.**

**Connecting cables to Junction Box.**

**1. Locate a position for the junction box beneath the dashboard on the passenger's side of the Car or on the center side post between the front seats.**
**It must be protected from dirt and moisture and must be afforded adequate space for cooling. There must be sufficient space to allow for connection of all cabling.**
**2. DO NOT mount the junction box at this stage. First connect the Microphone, PTT, Speaker, Power cable and Cradle Cable to their corresponding connections on the Junction Box as indicated in Diagram 6 below.**

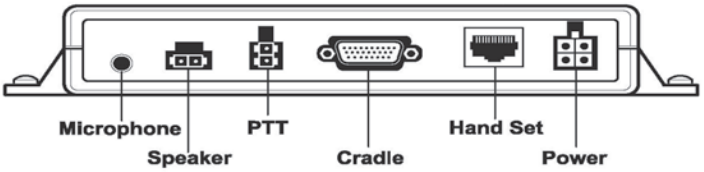


**Diagram 6**

**3. After connecting the power cable's connector to the Junction Box, cut in half the red wire attached to the fuse housing supplied. Cut the long red power lead to the desired length and connect (crimp) it to the one end of the wire to the fuse housing.**
**4. Connect the other end of the wire from the red fuse housing to the positive (+) side of the ignition. The fuse housing can be secured in place by using a plastic tie or screw through the hole in the fuse's plastic housing**
**5. Mount the junction box in place using the 2 mounting screws supplied.**

**Inserting Cradle Connector into Phone**

**1. Lift the protective covers covering the connectors on the left side of the phone and insert the connector at the end of the cable from the back of the cradle.**

**Diagram 7**

**Diagram 8**

**2. <u>NOTE:</u> When inserting the connector ensure that the round corners of the connector line up with the round corners of the receptacle on the phone (situated on the lower part of the phone)**

Rounded corners to line up with rounded corners of connector
Squared corners to line up with squared corners of connector

**<u>Diagram 9</u>**

**<u>Inserting and removing the handset from cradle</u>**

**3. Insert the bottom of the handset behind the ridge on the cradle and press the top of the handset back into the Cradle until it snaps into place.**

Insert side audio cable connector
Press button on top of cradle to release phone
Insert Phone behind ridge on the cradle
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**<u>Diagram 10</u>**

**4. Turn the Handset on.**
**5. To remove the handset from the Cradle, press the release button on the top of the cradle. The Handset will snap forward out of the cradle.**

**Car Ignition connection**
**1. When the Car ignition is ON, the Car Kit will stay on as long as the cables are inserted into both sides on the handset.**
**2. When the ignition is turned OFF the Car Kit will turn OFF after 60 minutes.**
**3. Use of the PTT in the Car will turn on the Car Kit for 8 minutes, after which it will turn off again.**

**Making a dispatch call**
**1. Dial the desired number on the handset's key pad**
**2. Press and hold down the PTT button.**
**3. Speak towards the visor microphone.**
**4. Adjust the speaker volume using the handset's volume control**
**5. Incoming audio will be heard from the amplified speaker.**

**Making or receiving a hands-free telephone call**
**1. To receive an incoming hands-free telephone call, press the Green phone key, on the handset's keypad or the PTT button for a short period. A confirmation tone that the call has been answered will be heard through the speaker**
**NOTE! If the PTT button is pressed for more than 2 seconds it will reject and end the call.**
**2. To make a hands-free telephone call, place the handset into the cradle and dial the desired number on the handset's keypad and press the phone key.**
**3. Adjust the speaker volume using the handset's volume control.**
**4. Incoming audio will be heard through the speaker.**
**Note! For best audio during an interconnect call set the volume level at 5 bars or less.**

**Call Waiting in both Hands-free mode and with Privacy handset**
**1. To answer an incoming call during an active call, press the PTT button for a short period. This will put the current call on hold and answer the incoming call.**
**2. A short press on the PTT will toggle between the calls.**
**3. Pressing the PTT for more than 2 seconds will terminate the call.**

**Charging the battery**

**1. With the handset turned off, the Car kit will charge the battery to 60% in approximately 1 hour. The charge time will be longer if the handset is operational during charge time.**

**2. For operator convenience, the handset's backlight will remain on for ease of viewing during low/no-light conditions.**

**NOTE! Batteries will charge within the temperature window of -10 C to +40 C (50 F to 104 F). If the battery is outside the temperature window, no charge current will be supplied to the battery.**

**Operating Specifications**

| | |
|---|---|
| **Input voltage range:** | **11V dc to 32V dc** |
| **Operating ambient:** | **-30C to +60 C** |

## Optional Extras

**ATT7107A – Handset with Cradle**

**Part # ATT7107A – Privacy Handset with Cradle**

**1. To use the Privacy Handset, plug the connector on the end of the coil cord into the corresponding RJ45 receptacle on the Junction Box. See Diagram 6 above**

**2. An active call can be terminated and an incoming call can be rejected by pressing the PTT button on the back of the Privacy handset for more than 2 seconds.**

**3. To switch from an active call with the Privacy handset to hands-free operation, place the Privacy handset into its cradle. Audio will then be routed to the speaker. If the PTT is pressed for more than 2 seconds, it will terminate the call.**

**4. If the Privacy handset is not placed into its cradle, after the call is terminated, a reminder tone will be heard through the speaker, one minute after all activity is finished until the Privacy handset is returned to its handset.**

**ATT8428A – Palm Mic.**

**Part # ATT8428A – Palm Mic**

**1. To use a Palm Mic. plug the connector on the end of the coil cord of the Palm Mic. into the corresponding RJ45 receptacle on Junction Box. See Diagram 6 above.**

**2. Once connected, the pressing of the switch on the Palm Mic. will deactivate the Visor Mic. and activate the Palm Mic.**

ADVANCETEC INDUSTRIES INC

1150 NW 163rd Drive, Miami, FL 33169
T: 305-623-3939 F: 305-623-3996
www.advancetec.com
www.advanceMobileGPS.com